

# 3D DESIGN

## SET UP



1. Double click SKETCH UP
2. Choose Template
  - a. Select Woodworking inches (click once)
  - b. Click Start using Sketch Up button
3. Click VIEW tab
  - a. Select TOOLBARS
  - b. Make sure LARGE TOOL SET and MEASUREMENTS IS SELECTED, and deselect the getting started box.

## USING SKETCH UP

SOLID (RED, BLUE, GREEN) LINES equals positive direction

DOTTED (RED, BLUE, GREEN) LINES equals negative direction

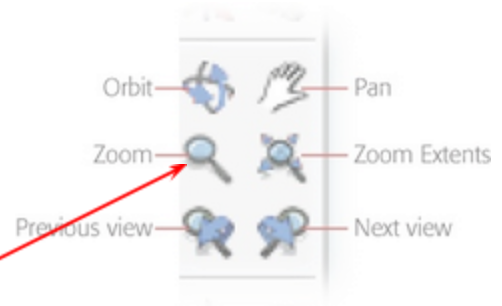
X axis = RED

Y axis = GREEN

Z axis = BLUE

## CREATING SHAPE

1. CLICK rectangle button
2. Starting at 0,0,0 Click once and drag in the (+,+) direction
3. w/o touching the mouse pad type  $1\frac{1}{4}$ ,  $1\frac{1}{4}$  (enter)
4. Click on the Zoom Extents button
5. Click the push pull button, then select the square you made by left clicking once
6. Pull in the positive Z direction, without moving the mouse, type  $1\frac{1}{4}$  (enter)
7. Click the zoom extents button
8. Check the size of your die by clicking the DIMENSION TOOL, then click on one of the edges of the die



**NOTE: IF YOU MAKE A MISTAKE. click EDIT -----> UNDO**

## Begin creating layout lines

1. Click the Tape Measure tool
2. Click the edge you want to measure from, move mouse in direction you want layout line and type ( $\frac{1}{4}$ ) ENTER
3. REPEAT FOR ALL LAYOUT LINES ON THAT FACE ONLY

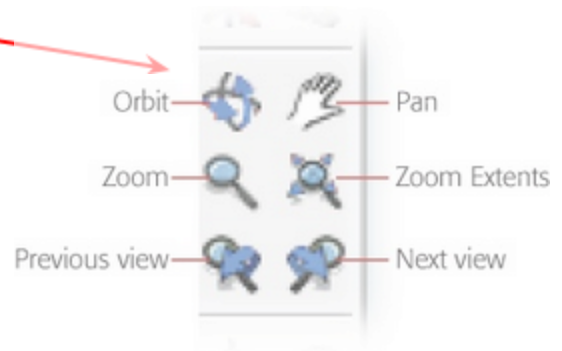
## CREATING CIRCLES

1. Click the Circle tool
2. Click one of the intersection, and move mouse outward
3. Type RADIUS size (circle size on 2D drawing is DIA....please use RADIUS)  
press ENTER
4. repeat steps 1-3 for making circles for all dots on that face

## PUSH PULL DOTS

**NOTE: IF YOU MAKE A MISTAKE. click EDIT -----> UNDO**

1. Before beginning this stage, please select the ORBIT tool , then rotate your die so you can see 3(three) sides at once.
2. NOTE: USE ERASER TOOL TO REMOVE ALL LAYOUT LINES
3. Click the PUSH PULL button
4. Move the tool inside one of your circles, click the circle and push in. Type 1/16 or .0625
5. Repeat step 3 and 4 for all dots on that face.



*Continue Layout Lines, Creating Circles, and Push Pull*

*Dots for all sides of your DICE. Use the ORBIT TOOL to rotate die to other faces*

## Color

1. To add color to your design, select the Paint Bucket. YOU CAN ONLY USE SOLID COLORS. Make sure to color the inside of your circles as well

**CAUTION CAUTION CAUTION**

**YOU MUST SAVE YOUR WORK AT THE END OF EACH PERIOD, OR YOUR WORK WILL BE LOST.**

## TO SAVE YOUR WORK: (FIRST TIME ONLY)

**CLICK FILE-> THEN CLICK SAVE AS-> CHOOSE THE DESTINATION(desktop is the last resort) COMPUTER, then scroll down and look for your M:DRIVE YOUR M:DRIVE may not be there, IF NO M:DRIVE, choose desktop.**

## **CREATING YOUR DICE VIDEO**

In order to turn your 3D dice design in for grading, you must create a short video for me to grade it. Sketchup will help you do this. Please follow the steps below to create your DICE VIDEO.

STEP 1: Turn your die so you can see the six, two, and three all at the same time.

STEP 2: Click the view tab, then select animation, add scene. THIS JUST TOOK A PICTURE OF THIS VIEW

STEP 3: Rotate your die so you are only looking at the 6. Repeat STEP 2. Continue this process for the 5 remaining sides of the die. Once completed you will have 7 scenes.

STEP 4: Move your mouse onto scene 1, RIGHT CLICK, and select PLAY ANIMATION. You are proofing your video before you export it. MAKE SURE IT SHOWS EVERYTHING YOU WANT IT TO>

STEP 5: EXPORT YOUR VIDEO: CLICK FILE, EXPORT, ANIMATION, VIDEO. At this time you MUST give your file a name. The name will be YOUR FIRST NAME then DICE VIDEO. After you give your file a name, you must tell it where to save the file. Make sure to save it in your M: DRIVE. (Teacher will demonstrate this)

STEP 6: WAIT FOR VIDEO TO EXPORT

STEP 7: TURN ASSIGNMENT IN ON GOOGLE CLASSROOM (TEACHER DEMO, TAKE NOTES)